What is claimed is:

1. Apparatus for building a disk stack for inclusion in a magnetic disk drive, the apparatus comprising:

a spindle comprising first and second disk contacts; and

a mechanism to bias an inner diameter of a stack of plural disks toward both the first disk contact and the second disk contact.

2. Apparatus for building a disk stack for inclusion in a magnetic disk drive, the apparatus comprising:

a spindle comprising a given outer diameter;

plural stacked disks having inner sleeve-like openings with a given inner diameter slightly larger than the outer diameter of the spindle;

longitudinal spacers to provide spaces between sets of adjacent disks mounted to the spindle along the length of the spindle; and

a disk alignment mechanism comprising lateral protrusions defining at least two lateral spacing points of contact and a biasing mechanism to bias a side of the spindle toward a corresponding part of an inner diameter of the plural stacked disks, whereby the outer diameter of the spindle and the inner diameter of the plural stacked disks contact each other at the two lateral spacing points of contact.

3. The apparatus according to claim 2, wherein the spindle is cylindrical.

4. The apparatus according to claim 3, wherein the spacers comprise separate sleeve-like members having an inner diameter slightly larger than the outer diameter of the spindle.

5. The apparatus according to claim 3, wherein an outer surface of the spindle comprises two lateral protrusions protruding radially outwardly and extending longitudinally along the outer surface of the spindle, apex portions of the lateral protrusions comprising the two lateral spacing points of contact.

6. The apparatus according to claim 5, wherein a distance between the two lateral protrusions is 120°.

7. The apparatus according to claim 5, wherein a distance between the two lateral protrusions if from 60° to 150°.

8. The apparatus according to claim 5, wherein a radial distance from a central longitudinal axis of the spindle to a lateral spacing point of contact of each of the lateral protrusions is approximately equal to a radial distance from a central longitudinal axis of the disk to an inner diameter surface of the disk.

9. The apparatus according to claim 3, wherein the inner diameter of the disk stack comprises two lateral protrusions protruding radially inwardly, apex portions of the lateral protrusions comprising the two lateral spacing points of contact.

10. The apparatus according to claim 9, wherein a distance between the two lateral protrusions is 120°.

11. The apparatus according to claim 10, wherein a distance between the two lateral protrusions is from 60° to 150° .

12. The apparatus according to claim 9, wherein a radial distance from a central longitudinal axis of the disk to a lateral spacing point of contact of each of the lateral protrusions is approximately equal to a radial distance from a central longitudinal axis of the spindle to an outer diameter surface of the spindle.

13. The apparatus according to claim 3, wherein the inner diameter of the disk stack comprises a disk lateral protrusion protruding radially inwardly, an apex portion of the disk lateral protrusion comprising a first of the two lateral spacing points of contact, and wherein the outer surface of the spindle comprises a spindle lateral protrusion protruding radially outwardly and extending longitudinally along the outer surface of the spindle, an apex portion of the spindle lateral protrusion comprising a second of the two lateral spacing points of contact.

14. The apparatus according to claim 13, wherein a distance between the two lateral spacing points of contact is 120°.

15. The apparatus according to claim 13, wherein a distance between the two lateral protrusions is from 60° to 150° .

16. The apparatus according to claim 13, wherein a radial distance from a central longitudinal axis of the spindle to the second lateral spacing point of contact is approximately equal to a radial distance from a central longitudinal axis of the disk to an inner diameter surface of the disk, and wherein a radial distance from a central longitudinal axis of the disk to the first lateral spacing point of contact is approximately equal to a radial distance from the central longitudinal axis of the spindle to the outer diameter surface of the spindle.

17. The apparatus according to claim 1, wherein the mechanism to bias comprises a mechanism to hold the spindle at an angle.

18. The apparatus according to claim 17, wherein the angle is 45° in relation horizontal.

19. The apparatus according to claim 2, wherein the mechanism to bias comprises a device to hold the spindle at an angle.

20. The apparatus according to claim 19, wherein the angle is 45° in relation to horizontal.

21. The apparatus according to claim 2, wherein the mechanism to bias comprises a horizontal support fixture to hold a base holding the spindle vertically, and further comprises a pusher to push the disks laterally in relation to the spindle.

22. A method for building a disk stack for inclusion in a magnetic disk drive, the method comprising:

providing a spindle comprising first and second disk contacts; and

biasing an inner diameter of a stack of plural disks toward both the first disk contact and the second disk contact.

23. A method for building a disk stack for inclusion in a magnetic disk drive, the method comprising:

providing a spindle comprising a given outer diameter;

mounting on the spindle one or more disks having inner sleeve-like openings with a given inner diameter slightly larger than the outer diameter of the spindle, longitudinal spacers providing spaces between pairs of adjacent disks mounted to the spindle along the length of the spindle;

concentrically aligning the disks in relation to the spindle, using lateral protrusions defining at least two lateral spacing points of contact and biasing a side of the spindle toward a corresponding part of an inner diameter of the one or more disks, whereby the outer diameter of the spindle and the inner diameter of the disks contact each other at the two lateral spacing points of contact.

24. The method according to claim 23, wherein the spindle is cylindrical.

25. The method according to claim 24, wherein the spacers comprise separate sleeve-like members having an inner diameter slightly larger than the outer diameter of the spindle.

26. The method according to claim 25, wherein the spacers comprises rings.

27. The method according to claim 24, wherein an outer surface of the spindle comprises two lateral protrusions protruding radially outwardly and extending longitudinally along the outer surface of the spindle, apex portions of the lateral protrusions comprising the two lateral spacing points of contact.

28. The method according to claim 27, wherein a distance between the two lateral protrusions is 120°.

29. The method according to claim 27, wherein a distance between the two lateral protrusions is from 60° to 150°.

30. The method according to claim 27, wherein a radial distance from a central longitudinal axis of the spindle to a lateral spacing point of contact of each of the lateral protrusions is approximately equal to a radial distance from a central longitudinal axis of the disk to an inner diameter surface of the disk.

31. The method according to claim 24, wherein the inner diameter of the disk stack comprises two lateral protrusions protruding radially inwardly, apex portions of the lateral protrusions comprising the two lateral spacing points of contact.

32. The method according to claim 31, wherein a distance between the two lateral protrusions is 120°.

33. The method according to claim 31, wherein a distance between the two lateral protrusions is from 60° to 150°.

34. The method according to claim 31, wherein a radial distance from a central longitudinal axis of the disks to a lateral spacing point of contact of each of the lateral protrusions is approximately equal to a radial distance from a central longitudinal axis of the spindle to the outer diameter of the spindle.

35. The method according to claim 24, wherein the inner diameter of the disk stack comprises a disk lateral protrusion protruding radially inwardly, an apex portion of the disk lateral protrusion comprising a first of the two lateral spacing points of contact, and wherein the outer surface of the spindle comprises a spindle lateral protrusion protruding radially outwardly and extending longitudinally along the outer surface of the spindle, an apex portion of the spindle lateral protrusion comprising a second of the two lateral spacing points of contact.

36. The method according to claim 35, wherein a distance between the two lateral spacing points of contact is 120°.

37. The method according to claim 35, wherein a distance between the two lateral protrusions is from 60° to 150°.

38. The method according to claim 35, wherein a radial distance from a central longitudinal axis of the spindle to the second lateral spacing point of contact is approximately

equal to a radial distance from a central longitudinal axis of the disk to an inner diameter surface of the disk, and wherein a radial distance from a central longitudinal axis of the disk to the first lateral spacing point of contact is approximately equal to a radial distance from the central longitudinal axis of the spindle to the outer diameter surface of the spindle.

39. The method according to claim 22, wherein the biasing comprises holding the spindle at an angle.

40. The method according to claim 39, wherein the angle is 45° in relation to horizontal.

41. The method according to claim 23, wherein the biasing comprises holding the spindle at an angle.

42. The method according to claim 41, wherein the angle is 45° in relation to horizontal.

43. The method according to claim 23, wherein the biasing comprises holding the spindle vertically and pushing the disks laterally toward the spindle.